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IS : 10378 - 1982

Indian Standard
SPECIFICATION FOR
KNIFE BACK FOR HARVESTING MACHINES

UDC 631.354.022



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INDIAN STANDARDS INSTITUTION
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NEW DELHI 110002

Indian Standard

**SPECIFICATION FOR
KNIFE BACK FOR HARVESTING MACHINES**

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Indian Standard
**SPECIFICATION FOR
KNIFE BACK FOR HARVESTING MACHINES**

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 December 1982, after the draft finalized by the Harvesting and Threshing Equipment Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Knife back is a steel strip used for attaching the knife sections and knife heads of the cutter bar. In order to ensure interchangeability, necessary dimensions of knife back have been specified in this standard.

0.3 In preparation of this standard, assistance has been derived from the following:

ISO/DIS 5717-1981 Equipment for harvesting — Combine harvester — Sickle guards or fingers — Interchangeable dimensions. International Organization for Standardization.

BS 1562 : Part 2 : 1973 Specification for agricultural mower and combine-harvester parts : Part 2 Metric units. British Standards Institution.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies material, dimensional and other requirements for knife backs used for harvesting machines.

*Rules for rounding off numerical values (*revised*).

2. MATERIAL

2.1 The knife back shall be manufactured from carbon steel having minimum carbon content of 0·35 percent.

3. DIMENSIONS

3.1 The dimensions when read in conjunction with Fig. 1 shall be as given in Table 1.

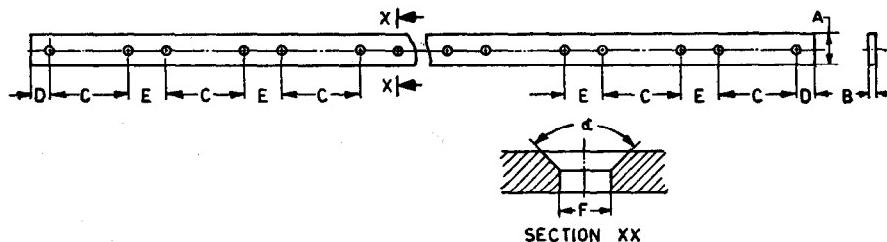


FIG. 1 KNIFE BACK

DIMENSIONS OF KNIFE BACK

(All dimensions except α are in mm)

SL No.	DESIGNATION	DIMENSIONS	TOLERANCE
(1)	(2)	(3)	(4)
i)	A	20 Min	—
ii)	B	4·5 Min	—
iii)	C	50·8 (51·5) (52·5)	+ 0·1 — 0
iv)	D	12 Min	—
v)	E	25·4 (23·7)	± 0·1
vi)	F	5·5	+ 0·2 — 0
vii)	α	75° or 90°	± 1°

NOTE — The dimensions given in parenthesis against C and E are non-preferred dimensions.

3.2 The hole shall be placed in centre of the width of the knife back. The position of the holes shall be within $\pm 0·3$ mm of the nominal position when measured over any ten holes.

4. WORKMANSHIP AND FINISH

- 4.1** The knife back shall be flat. It shall be free from scales and seams.
- 4.2** The holes shall be free from burrs.
- 4.3** The knife back may be given a coat of anticorrosive paint.

5. MARKING AND PACKING

5.1 Marking — Each knife back shall be marked with the following particulars:

- a) Manufacturer's name or recognized trade-mark, and
- b) Batch or code number.

5.1.1 Each knife back may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provision of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5.2 Packing — Knife back shall be packed for safe handling in transit and storage, as agreed to between the purchaser and the supplier.

6. SAMPLING FOR LOT ACCEPTANCE

6.1 Unless otherwise agreed to between the purchaser and the supplier, the method of sampling and criteria for conformity of knife back for lot acceptance shall be in accordance with **3 of IS : 7201-1974***.

*Method of sampling for agricultural machinery and tractors.

INDIAN STANDARDS

ON

HARVESTING AND THRESHING EQUIPMENT

IS :

- 3153-1979 OLPAD thresher (*first revision*)
- 3327-1982 Pedal-operated paddy thresher (*first revision*)
- 4358-1967 Sickles
- 6024-1970 Guards for grain harvesting machines
- 6025-1982 Knife sections for harvesting machines (*first revision*)
- 6284-1975 Test code for stationary power thresher for wheat (*first revision*)
- 6320-1971 Wheat power thresher (hammer mill type)
- 7789-1975 Sugarcane stripper
- 8122 (Part I)-1976 Test code for combine harvester thresher: Part I Terminology
- 8122 (Part II)-1981 Test code for combine-harvester-thresher: Part II Performance tests
- 9019-1979 Code of practice for installation, operation and preventive maintenance of power threshers
- 9020-1979 General and safety requirements for power threshers
- 9129-1979 Technical requirements for safe feeding systems for power threshers
- 9826-1981 Glossary of terms relating to harvesting and threshing equipment
- 9877-1981 Code of practice for installation, operation and preventive maintenance of grain combine
- 10205-1982 Cotton stalk puller